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RELOCATION INSTRUCTIONS

GOVERNMENT DOCUMENTS
COLLECTION

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federal emergency
management agency



GREATER BOSTON RISK AREA SUBURBAN NORTH

DRAFT

- WHO WILL BE EVACUATED
- WHAT TO DO WHEN YOU ARRIVE

- WHERE YOU WILL BE RELOCATED
- FACTS ABOUT A NUCLEAR EXPLOSION
- HOW TO GET THERE
- WHAT TO TAKE
- HOW TO PROTECT YOU & YOUR FAMILY

IMPORTANT NOTICE

This information is being published at the request of government officials, of the State of Massachusetts because a serious international crisis exists. If the situation becomes more serious, it may be necessary for the citizens of the Greater Boston Risk Area, Suburban North to move to a safer location.

The decision to evacuate the area will be carefully considered. Evacuation will be directed only if there appears to be a real possibility of a nuclear attack. In such a case, evacuation may be the key to survival for you and your family.

You will be officially notified by radio and TV if evacuation is directed. Stay tuned to your local stations. In the meantime, you are urged to prepare for the possibility that you may have to leave the area for a safer location.

It is important for you to read the following information very carefully. It contains instructions and directions that you will need during this crisis period. Make sure that you and your family understand all these instructions.

**This information is your key to survival
READ IT.....KEEP IT**

WHY YOU SHOULD EVACUATE

The greater Boston Risk Area, Suburban North could be a potential target if the United States is attacked. The area where the greatest danger may exist is shown on the map below. To protect the people living in this area, plans have been made to relocate them to nearby areas which are considered to be safer from direct attack.

Those living in this risk area who do not leave accordingly to instructions will be subject to strictly enforced curfews. Movement within the risk area will be severely restricted to protect the property of those who have evacuated. In addition, most facilities or services cannot be provided in the risk area during the evacuation period. In general, food and goods will be used to supply the evacuated population in the reception areas.

Should an attack occur, the best existing shelter within the risk area will be reserved for key workers who will be working in essential industries, and for hospitalized or institutionalized people who cannot be evacuated.

WHO WILL GO

When OFFICIAL NOTIFICATION is given all those living in the vicinity of the Greater Boston Risk Area, Suburban North who are in the risk area shown on the map below, will be directed to evacuate* to reception areas in nearby counties -- that is, from a place of possible danger to a place of safety.

You can determine whether you should evacuate by locating where you live on the map. If it is within the risk area, you should be prepared to leave if notification is given. Two days or possibly more should be available to complete the evacuation. However, you should prepare now so that you can get ready to leave in an orderly manner, if notification of evacuation is given.

* Shift workers may be told to stay on their job until the end of their shift.

IF YOU ARE IN A HOSPITAL...

Most hospital patients will be evacuated. However, if it is impossible for you to be moved because of special care requirements, you will be cared for during the evacuation period. Similar consideration will be given to those residing in other institutions. Shelter and care will be provided in case of an imminent attack.

RISK AREA MAP CHECK TO SEE IF YOU LIVE IN RISK AREA



**IF YOU LIVE IN THIS AREA
SEE ROUTE AND DESTINATION CHART**

WHERE TO GO

• If You Have A Vacation Cabin, Relatives, Friends ...

As the crisis intensifies and evacuation appears imminent, if you have a vacation cabin or friends or relatives outside the risk area, but within a reasonable distance, GO THERE as soon as possible to get to the location of your choice.

• If You Do Not Have A Definite Location To Go To ...

You should proceed to the nearest reception area indicated for you on the route and destination chart. These assignments are based on the city or town in which you reside.

• If You Are A Key Worker ...

If you have been designated by your employer as a key worker in an essential industry, you will be expected to evacuate with your family in a reserved nearby reception area. You will not be expected to stay in the Greater Boston Risk Area, Suburban North but will commute daily to work from your assigned reception area. Protection will be provided for you while in the Greater Boston Risk Area, Suburban North and you will be able to join your family after work.

WHAT TO DO WHEN YOU ARRIVE

Your assignment to a host reception community is explained in detail on section entitled "How to Determine Your Assigned Route and Destination." When you reach your assigned or host reception community, follow your signs at off-ramps or along the routes which will direct you to the temporary reception or congregate care centers.

At the centers, you will register yourself and your family. Local officials will assign temporary lodging and you will be given further instructions.

Lodging in Public Buildings ...

If you are assigned to a public buildings, such as, a school, church, or other temporary lodging center, do everything you can to help maintain order and sanitary living conditions. Elect a leader and form working groups to help local officials and volunteers with such tasks as:

- * Cooking and feeding services
- * Providing water supply
- * Cleaning up trash and garbage
- * Maintaining order
- * Assuring quiet during sleeping hours
- * Organizing recreation and religious activities
- * Arranging medical care for the sick and assisting the handicapped

Lodging in a Private Home ...

If you are invited into a private home, be considerate and do your share to help your host. Remember that you are a guest and that your host has volunteered to share his home with you. You will be expected to treat his home and property with respect.

Use of Private Cars ...

Do not count on using your car in the host reception area except for storing your belongings. Evacuees' cars may be held in parking areas by local authorities, and gasoline will be scarce in any case.

HOW TO KEEP INFORMED

Listen to the radio for information and advice from national, State, and local officials. You will be told when you should return home. DO NOT RETURN HOME BEFORE YOU ARE ADVISED TO DO SO. It is impossible to predict how long you will have to stay in the host reception area. It could be only a few days or could last for a week or more.

If a nuclear attack should occur and the Emergency Broadcasting System (EBS) is in operation, a number of radio broadcast stations will remain on the air to provide emergency information. All other radio stations will stop broadcasting. Those emergency stations remaining on the air will provide you with information and instructions that you will need.

WHAT TO TAKE

You should prepare to take only those things which are deemed necessary for a stay of a week or more. See "Survival Supplies." This check list includes items you will need for your stay in the host reception area. Do not take all your favorite belongings.

All items on the checklist should be taken if you are going to use your own car for transportation. If you do not have a car and will be using another form of transportation, take only those items which can be carried in a suitcase such as those marked with an asterisk on the checklist.

PETS

No arrangements have been made to house pets in the reception area. Therefore, if you take your pet with you, it will probably be confined to your car and you will be responsible for its care. If you elect to leave your pets behind, be sure they are confined in a sheltered area with an adequate supply of food and water. Above all, do not turn your pet loose to fend for itself while you are gone.

PREPARE!

Here are some things you can do right now that will better prepare you and your family to survive and recover if a nuclear attack should occur.

1. Check to see if you live in the risk area.
2. Look up your host reception area assignment and familiarize yourself with the highway route assigned to you.
3. Go over the checklist of things to take with you. If you will need a prescription medicine or special food, check to see if you have an ample supply.
4. Collect all of your valuable papers and put them in one place, preferably wrapped in plastic in a metal container (tool box, fishing tackle box, etc.).
5. Check your home for security. See that all locks are secure. Store valuables in a safe place.

6. If you will use your car, be sure you have enough gas.
7. Be sure to take tools--especially SHOVELS, PICKS, HAMMERS. These will be essential in improvising a fallout shelter.
8. Stay tuned to your local TV radio station for instructions. They will broadcast the notice to evacuate, if directed by government officials.
9. Read this supplement carefully and discuss it with your family. If you do not understand any of these directions, CALL

Burlington - 272-5533	Melrose - 665-0234
North Reading - 664-4342	Malden - 324-3010
Reading - 944-0640	Medford - 396-9400
Woburn - 933-0700	Everett - 387-7443
Winchester - 729-4355	Chelsea - 884-0274
Stoneham - 438-4347	Revere - 284-3666
Wakefield - 245-3887	Winthrop - 846-1185

SURVIVAL SUPPLIES

CLOTHING AND BEDDING

- ★ work gloves
- ★ work clothes
- ★ extra underclothing
- ★ outerwear (depending on season)
- ★ rain garment
- ★ extra pair of shoes
- ★ extra socks or stockings
- sleeping bags and/or
- blankets and sheets

PERSONAL, SAFETY, SANITATION, AND MEDICAL SUPPLIES

- ★ battery operated (transistor)
- ★ radios, extra batteries
- ★ flashlight, extra batteries
- ★ soap
- ★ toothbrush & toothpaste
- ★ shaving articles
- ★ sanitary napkins
- ★ detergent
- ★ towels and washcloths
- toilet paper
- emergency toilet
- garbage can
- newspapers
- first aid kit
- ★ special medication (insulin, heart tablets, or other)

TOOLS FOR CONSTRUCTING A FALLOUT SHELTER

- pick ax
- shovel
- saw
- hammer
- ax
- crowbar
- nails and screws
- screw driver
- wrench

FOOD AND UTENSILS

- Take all the food you can carry (particularly canned or dried food requiring little preparation)
- water
- thermos jug or plastic bottles
- bottle and can opener
- eating utensils
- plastic or paper plates, cups, and napkins
- pan
- plastic and paper bags
- ★ candles and matches
- plastic drop cloth

DO NOT TAKE

- FIREARMS (Guns of any kind)
- NARCOTICS
- ALCOHOLIC BEVERAGES

IMPORTANT PAPERS

- ★ Social Security card
- ★ deeds
- ★ insurance policies
- ★ stocks and bonds
- ★ will
- ★ savings account books
- ★ credit cards, checks, and currency

BABY SUPPLIES

- ★ diapers
- ★ bottles and nipples
- ★ milk or formula
- ★ powder
- ★ rubber sheeting, etc.

*Items to take if you use Public Transportation

FACTS ABOUT A NUCLEAR EXPLOSION

If you are in an unprotected area near where a nuclear weapon explodes, you could not survive the effects of the blast and heat generated by the explosion. After the explosion, the major danger is from radiation sickness caused by radioactive fallout. This fallout

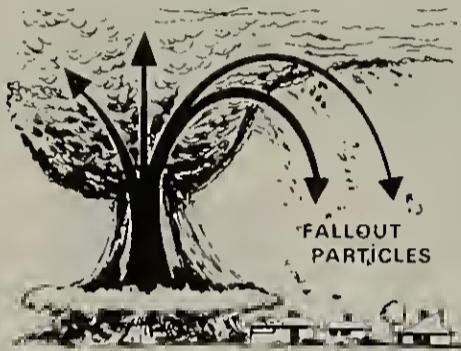
can endanger the life and health of people outside the high risk area. However, protective measures can be taken to safeguard you and your family from the effects of nuclear fallout.

This section describes what fallout is and how to protect yourself against its effects.

WHAT CAUSES FALLOUT...

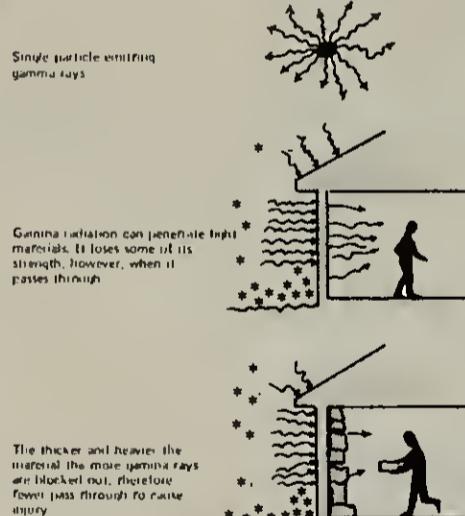
When a nuclear weapon explodes, great quantities of earth and other debris are sucked up into a nuclear cloud. The bits and particles of earth are mixed with the radioactive materials produced by the explosion and become "radioactive."

Within a short time, these fallout particles drift back to earth. Carried by the wind, they can spread over a large area far from the explosion site.



The particles may look like fine grains of sand, but the gamma rays they give off cannot be seen. (Special instruments are required to detect the rays and measure their intensity.) The particles can be seen, brushed, or washed off.

The gamma rays can pass through light materials. A considerable thickness of heavy material is required to stop the penetration of these rays.



The important points to remember about the danger of fallout are:

- You cannot see the gamma rays given off by fallout particles.
- Gamma radiation can penetrate light materials, therefore, heavy clothing alone will not protect you from these rays. If fallout particles should get on your skin, they should be brushed off to avoid skin burns.
- Radiation is more dangerous to very young, very old or sick people than to those in good health.
- A large dose of radiation received in a short period is more damaging than smaller doses received over a longer period.
- Radiation sickness is not contagious and cannot be passed from one person to another.

HOW TO PROTECT AGAINST FALLOUT

Radiation loses its strength:

- With the passage of time
- As it passes through materials
- As the distance from the particle is increased

The best protection is to surround yourself with heavy materials. A fallout shelter will give you this kind of protection.

A fallout shelter does not need to be a special type of building. Any building will provide some level of protection. If the walls and roof are thick or heavy enough to absorb many of the rays given off by the particles outside, then better protection can be obtained. Even caves and mines can provide protection.

The key fact to remember is the farther you are from radioactive fallout particles, the safer you are from radiation. For example, you have more protection in a basement than on the top floor of a building. Likewise, there is more protection in an inner corridor of an above-grade structure than near an outside wall.

WHY FALLOUT IS DANGEROUS...

The gamma rays given off by radioactive fallout particles can cause physical and chemical changes in the cells of the body, causing radiation sickness. No special clothing can protect you from the rays and there is no known drug or chemical that can prevent radiation from damaging the cells of the body. Large doses of radiation will cause death. But if you receive small or medium doses, the body will repair itself and you will get well.

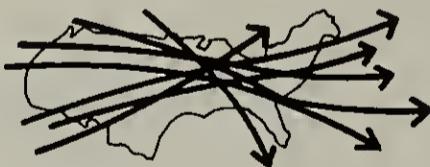
The amount of gamma radiation that you can tolerate depends on a number of factors. The effects of radiation are more severe in very young or very old persons and those not in good health. Also, a single large dose received in a short period of time is more damaging than the same dose received over a longer period. People exposed to radiation DO NOT BECOME RADIOPACTIVE and consequently are not dangerous to other people. Radiation sickness is NOT contagious and one person cannot infect another.

WHO WILL NEED FALLOUT PROTECTION

There is no way of predicting in advance where or how soon fallout will settle to the ground. This depends on the weather and on the direction and speed of the winds.

Areas close to a nuclear explosion might receive fallout within 20 or 30 minutes. Depending on the winds, it may take 5 to 10 hours for particles to drift down on communities 100 miles or more from the explosion.

The heavier particles giving off the most intense radiation will fall first. The lighter particles falling later will have lost much of the radiation high in the atmosphere. The first 24 hours after the fallout begins to settle are the most dangerous. The radiation from the particles loses its strength over time. The longer you are in a shelter, the lower the outside radiation levels will be when you emerge.



After a nuclear attack, dangerous levels of fallout COULD occur any place in the United States. Everyone, therefore, must have protection in case fallout occurs in his community.

HOW TO PROVIDE FALLOUT SHELTER

Many larger buildings have been designated as public fallout shelters. They are marked by signs like this:



However, most public shelters are in larger cities and may be needed by essential workers or those who cannot be relocated. Those counties which serve as hosting areas usually do not have enough shelters for their own residents. Consequently, it will be necessary for many residents of host counties—AND FOR MOST CITY EVACUEES—to upgrade the protection in the building they are to stay in or to improvise their own fallout protection.

Both the residents of the host areas and the city evacuees will have to WORK HARD FOR A DAY OR MORE to construct improvised shelters to protect against fallout. In this case, radiation protection would be "cheap as dirt." Upgrading existing structures by piling earth outside them can be done by adding an average of one cubic yard of earth for each 10 square feet of shelter space to be developed (more for some buildings, less for others). Moving a cubic yard of earth is not easy—it's about 80 to 100 buckets full—but can be done if everyone works for their survival.

Shelter in host areas can be found in the following:

- Buildings which have been identified in the National Shelter Survey and marked with a shelter sign.
- Home basements.
- Other buildings which can be upgraded to improve the fallout protection by placing earth overhead and against the walls.
- Caves, mines, and tunnels.
- Expedient fallout shelters involving digging of trenches, movement of earth, or use of materials at hand, such as tables, doors, bricks, or books.

HOW TO GET THERE

If you have a car, truck, camper or recreation vehicle, drive it to your designated host reception area, using the route shown for your community on the Route and Destination Chart below. Remember that several days should be available for evacuating all those living in the risk area. Take the time you need to prepare and pack.

An evacuation route is assigned for each community in the risk area. Routes have been designated to assure that the Greater Boston Risk Area, Suburban North residents will be equally distributed among the host reception areas so that there will be adequate food and lodging for you and your family. If you use a route not assigned to you, you may find the host reception area you have chosen is filled and there is no room for accommodations for you. Follow the evacuation route to the host reception area as indicated for your city or town. Where ever possible, police officers will be on duty to advise you and direct you. Obey all instructions by law enforcement officers.

If you get caught in a traffic jam, turn off your engine, remain in your car, listen for official instructions, and be patient. Do not get out of line to find an alternate route. All routes will be crowded. If traffic is stopped, do not leave your car for any reason.

Be sure you have adequate gasoline when you start out. DO NOT BUY MORE GAS THAN YOU WILL NEED. Gasoline will be in short supply and will be needed to provide you with food and other essential supplies. But, if you run out of gas or have other mechanical difficulties, move your car to the side of the road out of the traffic lanes to allow traffic to continue. Service to stalled autos will be available during the evacuation period. Leave your hood up as a sign that you are stalled, and you will be assisted as soon as possible.

IF YOU HAVE NO MEANS OF TRANSPORTATION

If you have no private means of transportation, go to the nearest neighborhood school. Government authorities will provide transportation to move you to your host reception area.

IF YOU ARE DISABLED

If you are physically unable to get to the schools for transportation, you can make arrangements to be picked up and be transported to your host reception area. Call your local Civil Defense Office.

HOW TO DETERMINE YOUR ROUTE AND DESTINATION

A separate map for each designated route is given on the following pages. Each of these maps have been highlighted to show only the assigned highways and host reception areas.

Some of the host communities closest to the risk areas have been reserved for key workers. These people will commute to and from these host reception areas to maintain vital services during the crisis period. If you are in an essential industry and your employer has designated you a key worker, you will evacuate your family to one of the reserved host areas.

If your community appeared on the Risk Map on Page 2, look up your community on the following Route and Destination Chart to locate your designated host community and route. Read across to find the host reception center(s) and route assigned to your city or town.

You will notice that some routes have several host reception areas listed. This is because the nearest host areas will fill up first as evacuation gets underway. Therefore, if the first host reception area is full, you will proceed on to the next area until you arrive at a location that can accommodate you. You will be notified that the host reception area is already filled either by signs along the highway or by local officials directing traffic onward. When you register at the first available host reception area, you will be assigned to a place to stay.

ROUTE AND DESTINATION CHART

COMMUNITIES AT RISK	HOST COMMUNITIES	ROUTE DESCRIPTION	ROUTE MAP/PAGE
Burlington	Claremont, N.H.	Route 128 to 93 to 89 to 103 to Claremont, N.H.	9
North Reading	Concord, N.H.	Route 28 to 213 to 93 to Concord, N.H.	9
Reading	Concord, N.H.	Route 28 to 213 to 93 to Concord, N.H.	9
Woburn	Laconia, N.H.	Route 93 to 3 to Laconia, N.H.	9
Winchester	Concord, N.H.	Route 3 to 128 to 93 to Concord, N.H.	9
Stoneham	Concord, N.H.	Route 28 to 213 to 93 to Concord, N.H.	9
Wakefield	Rochester, N.H.	Route 128 to 1 to 95 to Spaulding Turnpike to Rochester, N.H.	7
Melrose	Pittsfield, Me.	Route 1 to 95 to Maine Turnpike (Exit 23) to Pittsfield, Me.	8
Malden	Rochester, N.H.	Route 60 to 93 to 495 to 95 to Spaulding Turnpike to Rochester, N.H.	7
Medford	Concord, N.H.	Route 93 to Concord, N.H.	9
Everett	Wells, Me.	Route 99 to 1 to 95 to Maine Turnpike (Exit 2) to 9 to 1 into Wells, Me.	8

ROUTE AND DESTINATION CHART

COMMUNITIES AT RISK	HOST COMMUNITIES	ROUTE DESCRIPTION	ROUTE MAP/PAGE
Chelsea	Wells, Me.	Route 1 to 95 to Maine Turnpike (Exit 2) to 9 to 1 into Wells, Me.	8
Revere	Rochester, N.H.	Route 1 to 95 to Spaulding Turnpike to Rochester, N.H.	7
Winthrop	Rochester, N.H.	Route 60 to 1 to 95 to Spaulding Turnpike to Rochester, N.H.	7

RELOCATION ROUTE MAPS

 HOST AREA

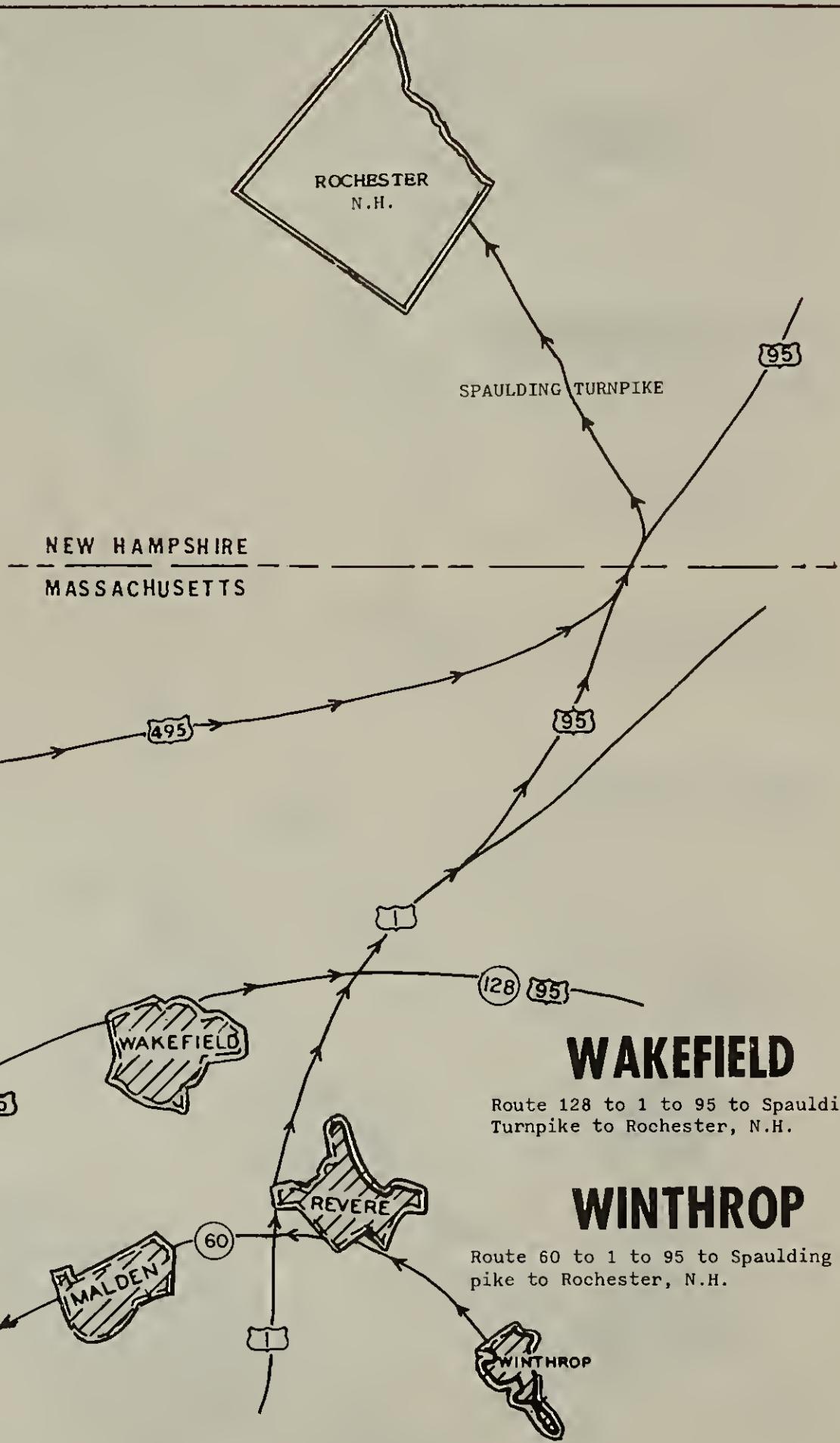
 RISK AREA

MALDEN

Route 60 to 93 to 495 to 95 to Spaulding Turnpike to Rochester, N.H.

REVERE

Route 1 to 95 to Spaulding Turnpike to Rochester, N.H.



WAKEFIELD

Route 128 to 1 to 95 to Spaulding Turnpike to Rochester, N.H.

WINTHROP

Route 60 to 1 to 95 to Spaulding Turnpike to Rochester, N.H.

RELOCATION ROUTE MAPS

HOST AREA
RISK AREA

CHELSEA

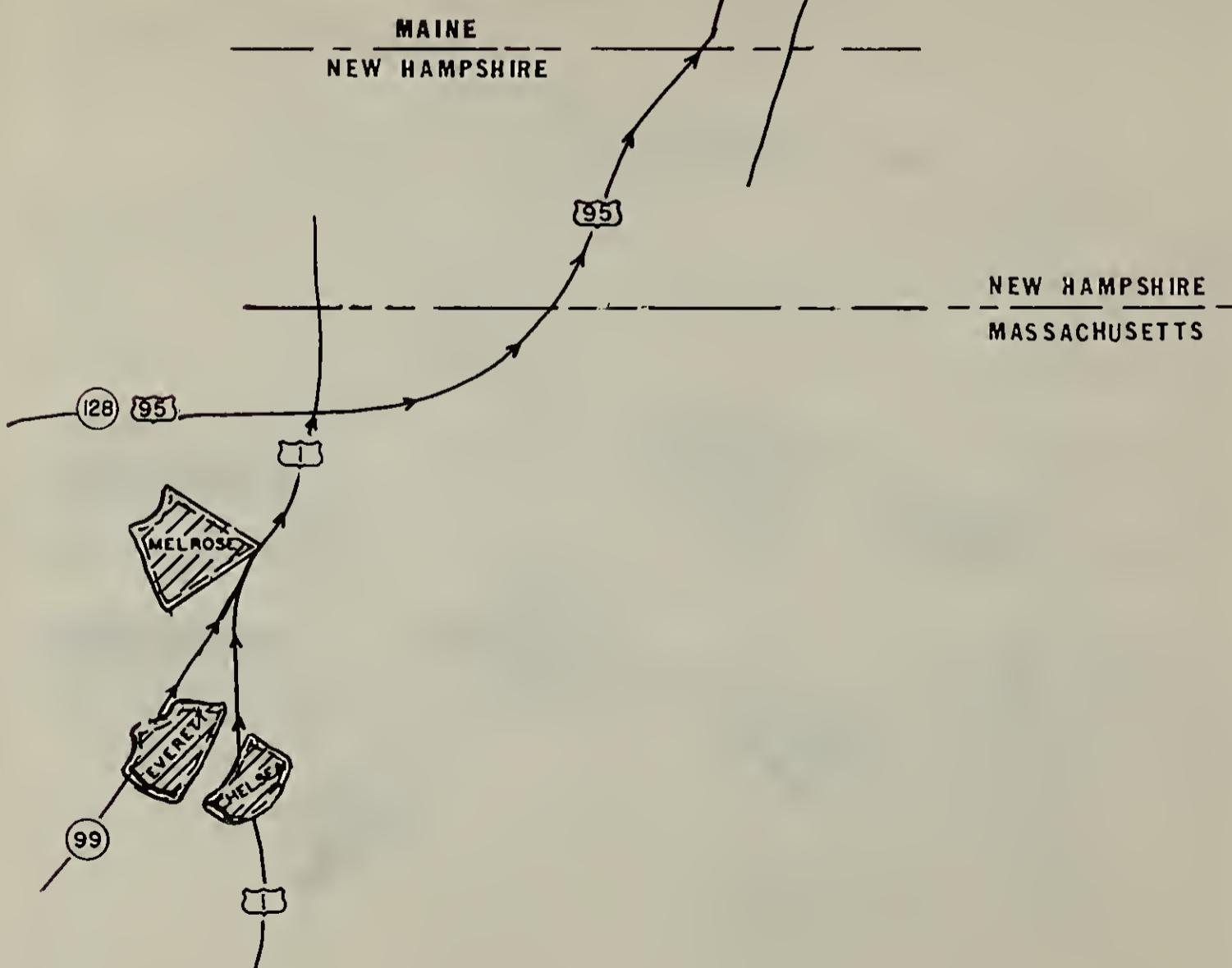
Route 1 to 95 to Maine Turnpike
(Exit 2) to 9 to 1 into Wells, Me.

EVERETT

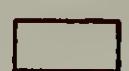
Route 99 to 1 to 95 to Maine Turnpike
(Exit 2) to 9 to 1 into Wells, Me.

MELROSE

Route 1 to 95 to Maine Turnpike
(Exit 23) to Pittsfield, Me.



RELOCATION ROUTE MAPS

 HOST AREA

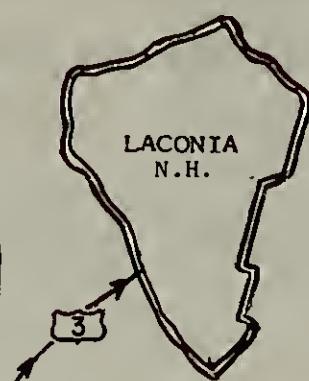
 RISK AREA

BURLINGTON

Route 128 to 93 to 89 to 103 to Claremont, N.H.

MEDFORD

Route 93 to Concord, N.H.



NORTH READING

Route 28 to 213 to 93 to Concord, N.H.

READING

Route 28 to 213 to 93 to Concord, N.H.

STONEHAM

Route 28 to 213 to 93 to Concord, N.H.

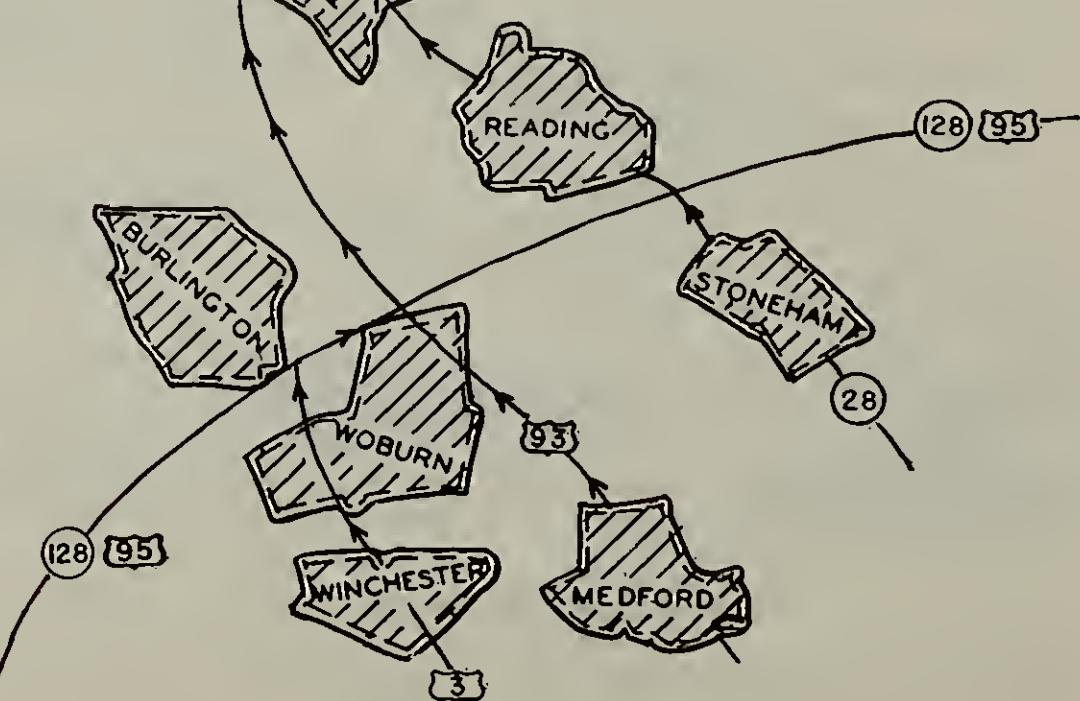
NEW HAMPSHIRE
MASSACHUSETTS

WINCHESTER

Route 3 to 128 to 93 to Concord, N.H.

WOBURN

Route 93 to 3 to Laconia, N.H.



HOST AREA RESIDENTS ONLY

If you plan to use your own home for shelter-Study the following on how to improve your HOME SHELTER

If you take shelter in the best protected part of your home, you can add additional protection. Although this might be possible at the time you receive warning to take shelter, a certain amount of preplanning is necessary if satisfactory results are to be expected. **NOW IS THE TIME TO DECIDE WHAT YOU WILL DO AND HOW YOU WILL DO IT.**

If your home has a basement, pick out the corner of your basement where the ground level outside is highest. This is the safest place in the basement.

If your home does NOT have a basement, some protection can be obtained in the central part of the house, at ground level furthest away from the roof and walls.

TO MAKE THESE AREAS SAFER:

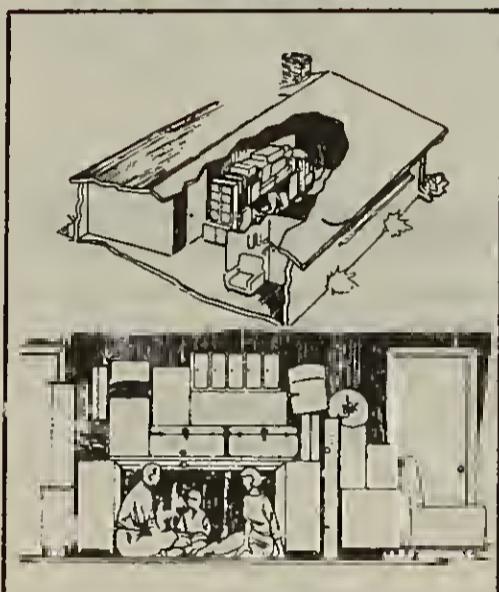
BASEMENT: Place boxes or drawers on top of a sturdy table or workbench and

fill with heavy material, such as dirt or sand or bricks. If the sides of the basement, away from the shelter area, have more than two feet of outside wall exposure, materials should also be placed around the open sides of the table. Be very careful not to overload the table to the point of collapse.

FIRST FLOOR OF HOUSE WITHOUT A BASEMENT: Place boxes or drawers on top AND around the sides of a sturdy table or workbench and fill them with heavy materials. Often a makeshift table can be made by using doors supported by cabinets or other pieces of furniture.

Further information about improving your home shelter can be found in the Civil Defense Booklet "IN TIME OF EMERGENCY" or from your local Civil Defense Chairman at your local town or city Civil Defense office.

GROUND FLOOR SHELTER



Place boxes or drawers on top and around the sides of a sturdy table or workbench and fill them with heavy materials. Often a makeshift table can be made by using doors supported by cabinets or other pieces of furniture.

WHAT TO DO NOW

- (1) Study the sketches and decide which is applicable to your situation and select a shelter location.
- (2) Take note of available shielding materials such as bricks, concrete blocks, sand or loose earth which could be moved quickly. Other things could also be used as shielding material, such as:
 - House doors that have been taken off their hinges (especially heavy outside doors).
 - Dressers and chests (especially if the drawers are filled with sand or earth).
 - Tables and bookcases.
 - Large appliances (such as washers, dryers, TV and hi-fi sets).
 - Trunks, boxes and cartons (if filled with earth, sand or other heavy material).
 - Books, magazines, and stacks of firewood or lumber.
 - Flagstones from outside walks and patios.
- (3) If no shielding materials are presently available, obtain and store some in a convenient location.
- (4) Take note of nonperishable foods normally kept in the home. If these are not sufficient to maintain your family for two weeks, increase the supply.

BASEMENT SHELTER



SELECT THE CORNER OF YOUR BASEMENT WHERE THE GROUND LEVEL OUTSIDE IS HIGHEST. THIS IS THE SAFEST PLACE IN THE BASEMENT.

Place boxes or drawers on top of a sturdy table or workbench and fill with heavy material, such as dirt or sand. If the sides of the basement away from the shelter area have more than two feet of outside wall exposure, materials should also be placed around the open sides of the table. Be very careful not to overload the table to the point of collapse.

CALL NOW TO SHARE YOUR BASEMENT

Claremont, N.H. - 542-6375

Rochester, N.H. - 332-2161

Concord, N.H. - 225-3359

Pittsfield - Somerset Co. ME. - 474-9188

Laconia, N.H. - 524-8769

Wells - York County, Me. - 324-1570

This is the most serious crisis our country has ever faced. As a resident of the Host Area you can help save the lives of your neighbors from the greater Boston Risk Area Suburban North, who have left their homes to seek safety here.

WILL YOU SHARE WITH ANOTHER FAMILY?

Your neighbors who have evacuated their homes need your help, particularly those families with little children. Volunteer now to bring a family to live with you and to help improve your fallout protection. You may be saving their lives. They will either bring food with them or help you buy enough. Call the number listed for your town now!

IF YOU HAVE NO BASEMENT: Follow the instructions for expedient shelters, or as a last resort, seek fallout protection, if necessary, at the nearest public shelter.

IF YOU WORK IN THE HOST AREA: If you work in a needed industry in the Host Area (food, health service or others as designated) report to work as usual - you will be needed.

FOLLOW ALL OFFICIAL INSTRUCTIONS FOR HOST AREA RESIDENTS - KEEP YOUR RADIO AND TV ON.

These are PLANS FOR EXPEDIENT FALLOUT SHELTERS



SAVE THESE PLANS—THEY MAY SAVE YOUR LIFE

● GENERAL INFORMATION

WITHOUT PROTECTION, UNTOLD NUMBERS OF AMERICANS WOULD DIE IN THE EVENT OF A NUCLEAR ATTACK. THE EXPEDIENT SHELTERS ILLUSTRATED IN THE FOLLOWING PAGES PROVIDE PROTECTION TO OCCUPANTS FROM THE DEADLY RADIATION OF RADIACTIVE FALLOUT GENERATED BY A NUCLEAR DETNATION—THEIR USE CAN SAVE THE LIVES OF MILLIONS OF AMERICANS.

EVEN THOUGH THE ILLUSTRATED SHELTERS ARE VERY AUSTERE, THERE ARE A NUMBER OF THINGS THAT CAN BE DONE TO IMPROVE THEIR HABITABILITY AFTER THEY HAVE BEEN BUILT. WITH THE USE OF A LITTLE INGENUITY AND EFFORT, THE SHELTERS CAN BE MADE MORE COMFORTABLE. SOME OF THE THINGS THAT CAN BE DONE ARE:

- CONSTRUCT SEATS, HAMMOCKS, OR BUNKS.
- COVER THE FLOOR WITH BOARDS OR LOGS AND DRAPE SHEETS OR MATERIAL OVER THE EARTH WALLS.
- PROVIDE SAFE, DEPENDABLE LIGHT.

HUMANS MUST HAVE WATER AND FOOD TO LIVE. WHEN PEOPLE ARE TO LIVE IN A SHELTER FOR A WEEK OR TWO, SUFFICIENT FOOD AND SUPPLIES MUST BE PROVIDED FOR THE OCCUPANTS. THE MINIMUM NECESSITIES ARE:

● WATER—MINIMUM REQUIREMENTS (DEPENDENT UPON TEMPERATURE—LESS IN COLD WEATHER, MORE IN WARMER) WILL BE FROM ONE QUART TO ONE GALLON PER PERSON PER DAY. STORAGE CAN BE ACCOMPLISHED BY USING DISINFECTED METAL OR PLASTIC TRASH CANS OR BOXES LINED WITH STRONG POLYETHYLENE FILM OR STRONG PLASTIC BAGS. FOR PURITY

EIGHT DROPS (ONE TEASPOON) OF A 5% CHLORINE SOLUTION (e.g., CLOROX) SHOULD BE MIXED INTO EACH 5 GALLONS OF WATER.

● FOOD—ALL FOOD SHOULD REQUIRE NO REFRIGERATION AND SHOULD BE BROUGHT TO THE SHELTER IN AIRTIGHT TINS OR BOTTLES. UNDER SHELTER CONDITIONS, PEOPLE WILL REQUIRE ABOUT HALF AS MUCH FOOD AS USUAL. FOODS SHOULD HAVE A HIGH NUTRITIONAL VALUE AND A MINIMAL AMOUNT OF BULK (i.e., CANNED MEATS — FRUITS — VEGETABLES, DRIED CEREALS, HARD CANOY, ETC.)

● SANITATION—A METAL CONTAINER WITH A TIGHT-FITTING LID FOR USE AS A TOILET WITH WHICH PLASTIC BAGS CAN BE USED. TOILET PAPER, SOAP, TOWELS, SANITARY ITEMS AND A QUANTITY OF STRONG PLASTIC BAGS WILL BE NEEDED.

● MEDICAL SUPPLIES—A WELL-STOCKED FIRST-AID KIT COMPARABLE TO WHAT IS USUALLY KEPT AT HOME. TAKE SPECIAL MEDICINES FOR INFANTS AND OTHERS AND A GOOD FIRST-AID HANDBOOK.

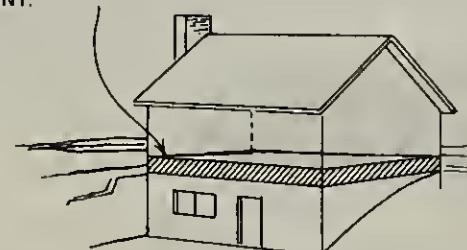
● CLOTHING AND BEDDING—SEVERAL CHANGES OF CLEAN CLOTHING, ESPECIALLY SOCKS AND UNDERCLOTHING—DEPENDENT UPON THE WEATHER BLANKETS, PILLOWS AND SLEEPING BAGS MAY ALSO BE NEEDED.

● PORTABLE RADIO—LASTLY, BUT HARDLY LEAST IMPORTANT, A PORTABLE RADIO WITH FRESH AND EXTRA BATTERIES. RADIO STATION BROADCASTS WILL ADVISE YOU WHEN IT IS SAFE TO ABANDON THE SHELTER AND ALSO PROVIDE YOU WITH OTHER IMPORTANT EMERGENCY INFORMATION.

fallout protection for homes with basements (partially belowground)



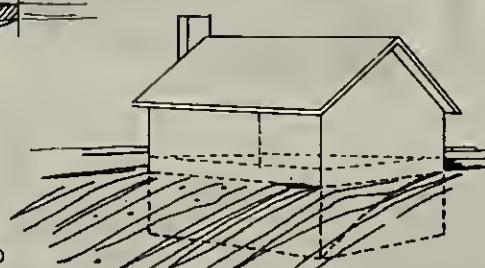
STEP ONE — PROVIDE OVERHEAD BARRIER BY PLACING 12" OF EARTH ON ROOF OR ON FLOOR OVER BASEMENT.



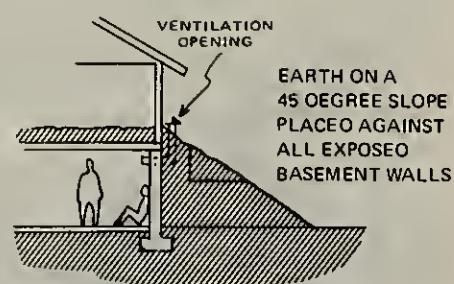
EARTH PILED AGAINST EXPOSED BSMT WALLS

HOMES WITH BASEMENTS PARTIALLY BELOWGROUND ALSO HAVE POTENTIAL FOR PROVIDING FALLOUT PROTECTION BUT NOT AS MUCH AS THOSE WITH BASEMENTS COMPLETELY BELOWGROUND.

TO IMPROVE THE FALLOUT PROTECTION IN THE BASEMENT AREA, TWO THINGS MUST BE DONE; (1) PROVIDE AN OVERHEAD BARRIER AND, (2) INCREASE THE BARRIER (THICKNESS) OF THE EXPOSED BASEMENT WALLS. THIS CAN BE ACCOMPLISHED AS SHOWN IN SKETCHES. BOTH STEPS MUST BE TAKEN TO OBTAIN THE FALLOUT PROTECTION. DOING ONLY ONE STEP IS NOT ENOUGH.



STEP TWO — IMPROVE VERTICAL BARRIER BY PLACING EARTH AGAINST ALL EXPOSED BASEMENT WALLS. COVER WINDOWS IN BASEMENT WALLS WITH WOOD TO PREVENT GLASS BREAKAGE DUE TO EARTH PRESSURE.



EARTH ON A 45 DEGREE SLOPE PLACED AGAINST ALL EXPOSED BASEMENT WALLS

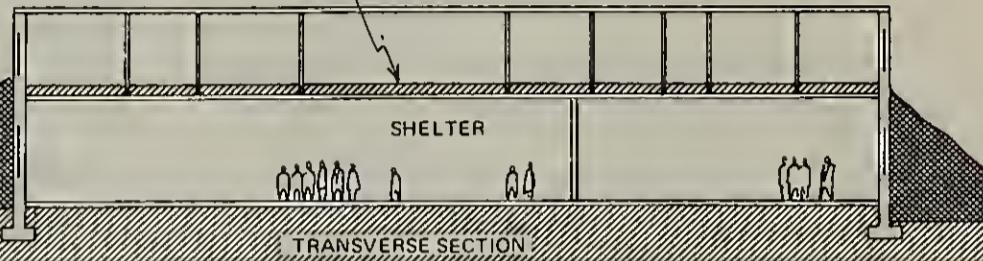
fallout protection in typical downtown row-type buildings



NOTE:
ADDITIONAL VENTILATION
WILL BE REQUIRED.
SEE DESIGN OF AIR
VENTILATION PUMP

TWO-STORY BUILDINGS IN A ROW GROUPING (NO SEPARATION BETWEEN BUILDINGS) CAN HAVE THE EXISTING FALLOUT PROTECTION IMPROVED CONSIDERABLY IN THE "INTERIOR" SECTIONS BY PLACING EARTH AT THE FRONT AND REAR OF THE BUILDINGS AS WELL AS ON THE FLOOR OVER THE FIRST STORY AND/OR THE ROOF AS SHOWN IN THE SKETCHES. THE TWO BUILDINGS AT EITHER END OF THE ROW SHOULD NOT BE USED FOR SHELTER PURPOSES SINCE THEY PROVIDE SHIELDING FOR THE "INTERIOR" SECTIONS. GLASS FRONTS SHOULD BE PROTECTED FROM BREAKAGE WITH WOOD OR PLYWOOD PANELS.

12" OF SOIL ADDED ON SECOND FLOOR OR ROOF



END STORES
CAN BE UPGRADED
BY PROVIDING BERM
ON END WALLS

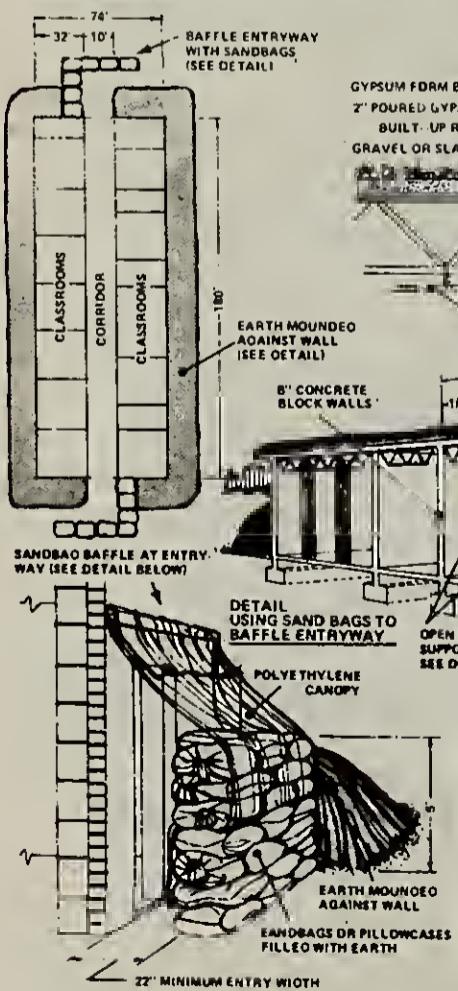
12" OF SOIL ADDED ON SECOND FLOOR OR ROOF



EXPEDIENT UPGRADING FALLOUT PROTECTION

typical one story elementary school without basement
- upgraded to obtain a protection factor of 40

TYPICAL FLOOR PLAN



TYPICAL ROOF DETAIL

GYPSUM FORM BOARD OR STEEL DECK
2" POURED GYPSUM DECK
BUILT-UP ROOF
GRAVEL OR SLAG

15" SAND OR EARTH

OPEN WEB JOISTS
ACOUSTICAL TILE
8" CONCRETE BLOCK

4" BRICK

TYPICAL WALL DETAIL

5' MINIMUM HEIGHT
OF EARTH FILL
ABOVE FLOOR

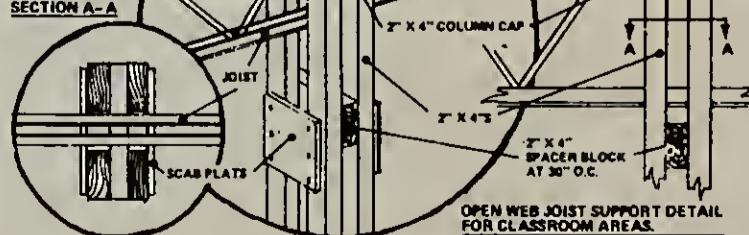
WOOD SHEETING
OVER WINDOWS

EARTH FILL

NOTES:

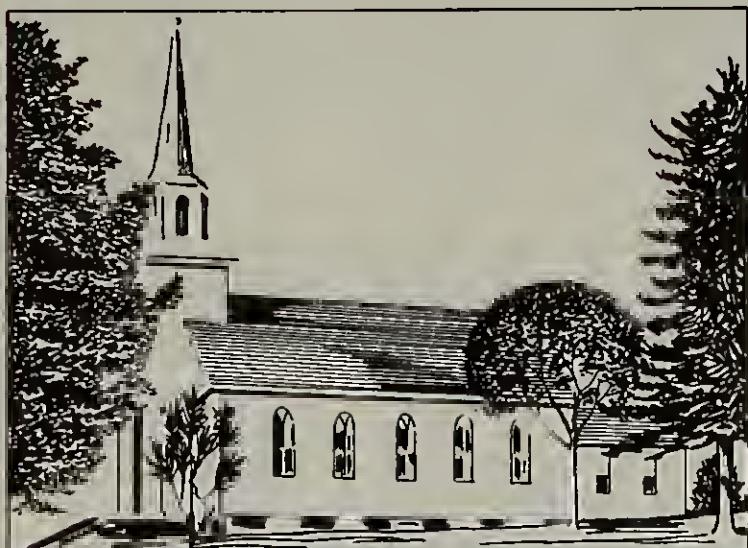
1. Place earth in 5" layers on the roof until the full depth of 15" is achieved.
2. The open web joist support system shown is adequate for heights up to 14" (floor to top of joist).
3. The open web joists must be supported as shown; otherwise, the joists may prematurely fail.
4. No supports are required for the joists in the corridors.
5. The shelter capacity will be limited to one person per each 10 sq. feet of usable floor space in that area covered and surrounded by earth fill.
6. Use polyethylene sheeting or similar material to keep fallout particles out of entryway.

SECTION A-A



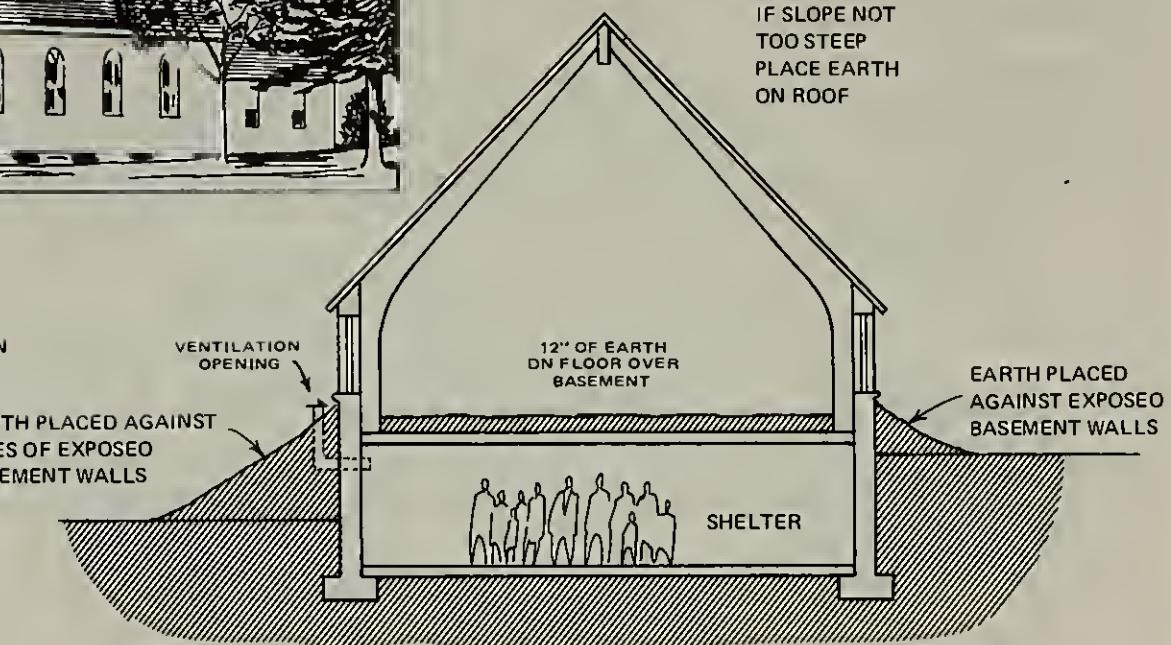
OPEN WEB JOIST SUPPORT DETAIL
FOR CLASSROOM AREAS.

fallout protection in churches



EXISTING CHURCH BUILDINGS CAN SERVE AS CONGREGATE CARE FACILITIES FOR RISK AREA EVACUEES. BEST PROTECTION CAN BE FOUND IN THOSE BUILDINGS THAT HAVE MASONRY EXTERIOR WALLS AND BASEMENTS. SHELTER IN THE BASEMENT AREAS CAN BE IMPROVED BY PLACING 12 INCHES OF EARTH ON THE FLOOR OVER THE BASEMENT AND BY MOUNDING EARTH AGAINST THE EXPOSED BASEMENT WALLS. EARTH CAN ALSO BE ADDED TO THE ROOF PROVIDED THE SLOPE IS NOT TOO STEEP.

NOTE:
ADDITIONAL VENTILATION
WILL BE REQUIRED.
SEE DESIGN OF AIR VENTILATION
PUMP



fallout protection in school buildings



EXISTING SCHOOL BUILDINGS CAN SERVE AS CONGREGATE CARE FACILITIES FOR RISK AREA EVACUEES. BEST FALLOUT PROTECTION CAN BE FOUND IN INTERIOR CORRIDORS AND ROOMS ON THE LOWEST FLOOR, ESPECIALLY IF THE SCHOOL HAS TWO OR MORE STORIES AND THE EXTERIOR WALLS ARE OF CONCRETE OR MASONRY CONSTRUCTION. FALLOUT PROTECTION CAN BE IMPROVED BY PROVIDING ADDITIONAL VERTICAL AND HORIZONTAL BARRIERS OF EARTH AS SHOWN IN SKETCHES. WINDOWS IN EXTERIOR WALLS THAT ARE TO BE COVERED WITH EARTH SHOULD BE PROTECTED WITH LUMBER OR PLYWOOD SHEETS SO THAT THEY WILL NOT BREAK UNDER THE EARTH FILL.



NOTE:
ADDITIONAL VENTILATION WILL BE REQUIRED SEE DESIGN OF AIR VENTILATION PUMP

COMPLETE THIS QUESTIONNAIRE IN DUPLICATE BEFORE ARRIVING IN HOST AREA

Family Name _____	DO YOU NEED TEMPORARY HOUSING? YES ____ NO ____							
St. Address _____	IF NO, WHERE WILL YOU STAY FOR THE DURATION OF THIS EMERGENCY?							
City/Town _____	Zip _____	HOME OF FRIEND ____ HOME OF RELATIVE ____ OTHER ____						
FOR USE BY RECEPTION OFFICIALS								
Shelter Assignment								
WHERE CAN YOU BE REACHED?								
ADDRESS _____ PHONE _____								
IF YES, HOW MANY PEOPLE ARE EVACUATING WITH YOU?								
CHILDREN ____ ADULTS ____ (PLEASE LIST BELOW)								
Shelter Name _____								
Address _____								
# Assigned _____								

List all family members traveling together, last name first, first name, age, sex, and occupation.

Last Name	First Name	Middle	Age	M	F	Soc.Sec.#	Occupation

List all other persons traveling with you. Use space for additional family members if necessary.

Family Name _____	DO YOU NEED TEMPORARY HOUSING? YES ____ NO ____							
St. Address _____	IF NO, WHERE WILL YOU STAY FOR THE DURATION OF THIS EMERGENCY?							
City/Town _____	Zip _____	HOME OF FRIEND ____ HOME OF RELATIVE ____ OTHER ____						
FOR USE BY RECEPTION OFFICIALS								
Shelter Assignment								
WHERE CAN YOU BE REACHED?								
ADDRESS _____ PHONE _____								
IF YES, HOW MANY PEOPLE ARE EVACUATING WITH YOU?								
CHILDREN ____ ADULTS ____ (PLEASE LIST BELOW)								
Shelter Name _____								
Address _____								
# Assigned _____								

List all family members traveling together, last name first, first name, age, sex, and occupation.

Last Name	First Name	Middle	Age	M	F	Soc.Sec.#	Occupation

List all other persons traveling with you. Use space for additional family members if necessary.

These are preliminary instructions only. Detailed plans and instructions will be made at a later date. Until then, you should know your hosting community; that is, the community to which you may be relocated should the Crisis Relocation option be activated. This plan has been prepared by the Massachusetts Civil Defense Agency in accordance with a contract funded by the Federal Emergency Management Agency.

MEDFORD

Route 93 to Concord, N.H.

NORTH READING

Route 28 to 213 to 93 to Concord, N.H.

READING

Route 28 to 213 to 93 to Concord, N.H.

STONEHAM

Route 28 to 213 to 93 to Concord, N.H.

WINCHESTER

Route 3 to 128 to 93 to Concord, N.H.

BURLINGTON

Route 128 to 93 to 89 to 103 to Claremont, N.H.

WOBURN

Route 93 to 3 to Laconia, N.H.

CHELSEA

Route 1 to 95 to Maine Turnpike (Exit 2) to 9 to 1 into Wells, Me.

MELROSE

Route 1 to 95 to Maine Turnpike (Exit 23) to Pittsfield, Me.

EVERETT

Route 99 to 1 to 95 to Maine Turnpike (Exit 2) to 9 to 1 into Wells, Me.

MALDEN

Route 60 to 93 to 495 to 95 to Spaulding Turnpike to Rochester, N.H.

REVERE

Route 1 to 95 to Spaulding Turnpike to Rochester, N.H.

WAKEFIELD

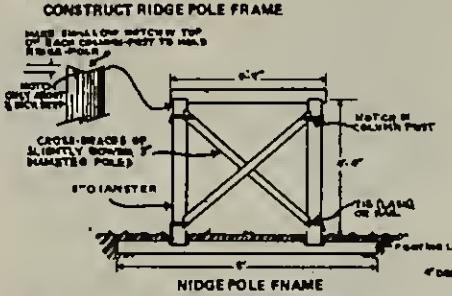
Route 128 to 1 to 95 to Spaulding Turnpike to Rochester, N.H.

WINTHROP

Route 60 to 1 to 95 to Spaulding Turnpike to Rochester, N.H.

EXPEDIENT FALLOUT SHELTER ABOVE - GROUND RIDGE - POLE

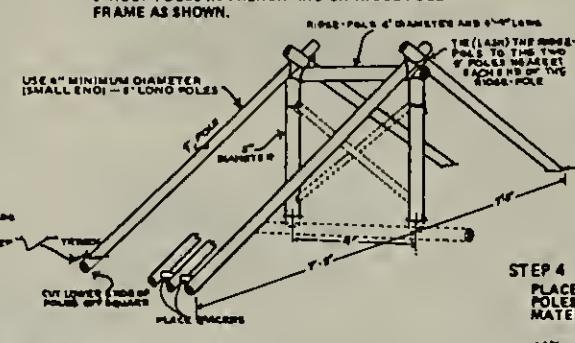
STEP 1 CONSTRUCT RIDGE POLE FRAME



SIDE VIEW SHOWING CROSS-BRACES OF COLUMN-POSTS (IF LARGE WALLS ARE AVAILABLE, SIMPLY NAIL TWO SIMILARLY SLOPING CROSS-BRACES ON OPPOSITE SIDES OF THE COLUMN-POSTS. IF NO LARGE WALLS ARE AVAILABLE, USE 2 COLUMNS AND USE ONLY ONE BRACE BETWEEN EACH PAIR OF POSTS AND SLOPE BRACES ALTERNATELY IN DIFFERENT DIRECTION).

IMPERSON SHELTER IS ILLUSTRATED — FOR EACH PERSON ABOVE 1 MALE RIDGE POLE 3 FT. LONGER; FOR 4 TO 8 PERSONS, USE 3 COLUMN POSTS — 10 TO 14 PERSONS, USE 4 COLUMNS.

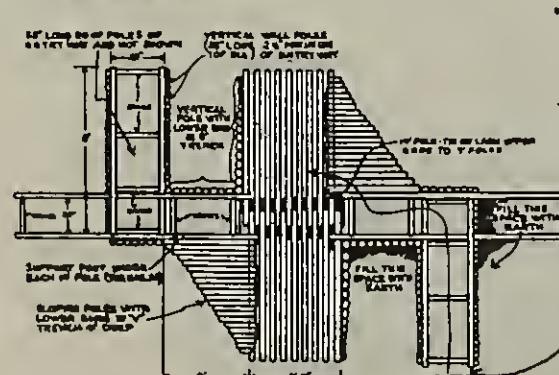
STEP 2 DIG 4" DEEP "V" TRENCH IN EARTH AND PLACE 9" ROOF POLES IN TRENCH AND ON RIDGE-POLE FRAME AS SHOWN.



TOOLS AND MATERIALS

1. SAW TO CUT GREEN POLES (BOW OR CIRCUSCUT SAW)
2. SHOVEL (ONE SHOVEL FOR EACH TWO WORKERS)
3. HAMMERS (ONE HAMMER CAN, OR POT WITH BAIL HANDLES)
4. KNIFE
5. THREE DOUBLE-SIDED SHEETS FOR THE ILLUSTRATED IMPERSON SHELTER, OR AN EQUIVALENT AREA OF EQUALLY STRETCHABLE FABRIC OR PLASTIC. ONE ADDITIONAL SHEET FOR EACH ADDITIONAL 2 OCCUPANTS. IF NOT AVAILABLE, USE ONE SHEET, OR ONE SHEET LAY OVER ANOTHER ACROSS THE LEFT RIDE POLES AND COVER WITH BAGS OR LEAVES TO FILL IN THE SPACES BETWEEN THE POLES.
6. AT LEAST 50 FT. OF ROPE OR STRONG CORD, OR ADDITIONAL BED SHEETS (OR OTHER FABRIC, EQUALLY STRETCHABLE, SO AS TO BE SHIELDED TO USE AS ROPE).
7. AT LEAST 3 EQUAL VARIOUS SIZES OF RAINGEAR, PLASTIC TABLE CLOTH, PLASTIC MATTRESS COVERS, ETC. ESSENTIAL IN RAINY, COLD WEATHER.
8. GLOVES TO PREVENT INJURY AND BLISTER TO HANDS.

STEP 3 CONSTRUCT ENTRYWAYS

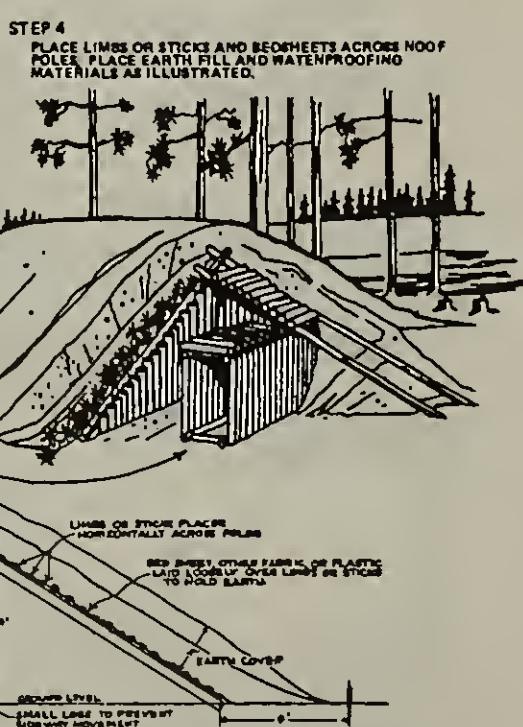


VIEW LOOKING DOWN ON SHELTER WITH ALL POLES IN PLACE EXCEPT THE NOF POLES OF THE TWO ENTRYWAYS.

ENTRYWAY DETAIL



SECTION THRU COMPLETED SHELTER



GENERAL INFORMATION
THIS SHELTER IS DESIGNED FOR AREAS WHERE THERE IS AN ABUNDANCE OF SMALL TREES AND BUSHES. ROUND SHELTERS ARE IMPRACTICAL. THE SHELTER (IMPERSON CAPACITY) CAN BE BUILT BY 8 PEOPLE WORKING A TOTAL OF 24 HOURS EACH. READ AND STUDY ALL INSTRUCTIONS BEFORE BEGINNING.

Cut out the marker designating your destination and attach it to your windshield with tape or glue.

L A

C L

C O

LACONIA, N.H.

CLAREMONT, N.H.

CONCORD, N.H.

R O

P I

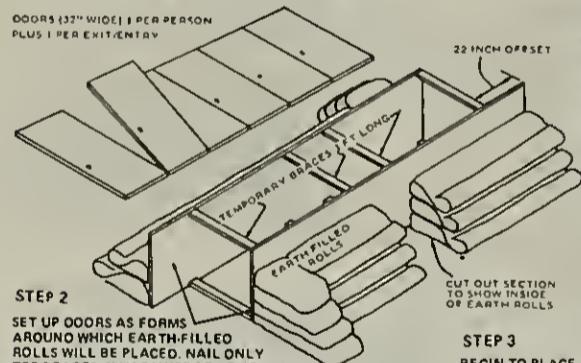
H E

ROCHESTER, N.H.

PITTSFIELD, ME.

WELLS, ME.

EXPEDIENT FALLOUT SHELTER ABOVE-GROUND DOOR-COVERED SHELTER



STEP 1
SELECT A SHELTER LOCATION WHERE THERE IS LITTLE OR NO CHANCE OF RAINWATER PONDING ON THE GROUND SURFACE. STAKE OUT SHELTER, REMOVE DOOR KNOBS, ALLOW 1 DOOR FOR EACH PERSON PLUS 1 DOOR FOR EACH ENTRY/EXIT AT BOTH ENDS. LIMIT IS 8 PERSONS PER SHELTER.

STEP 5

KEEP HEIGHT OF EARTH ABOUT EQUAL ON BOTH SIDEWALLS AS ROLLS ARE FORMED. AFTER SIDEWALLS HAVE REACHED PLANNED HEIGHT, REMOVE BRACES AND DOOR FORMS. USE SAME DOOR FORMS TO CONSTRUCT ENDWALLS WITH EARTH FILLED ROLLS. PROVIDE EXIT/ENTRY AT BOTH ENDS AS SHOWN.

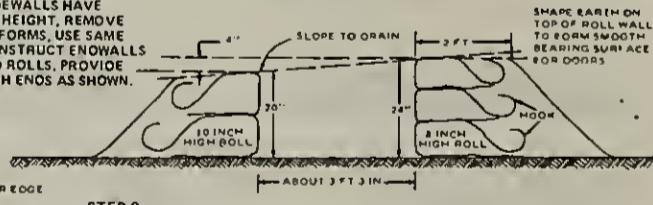
STEP 6

SET UP DOORS AS FORMS AROUND WHICH EARTH-FILLED ROLLS WILL BE PLACED. NAIL ONLY TOP BRACES. NAILS MUST BE REMOVED LATER. BRACE ALL CORNERS, CENTER, TOP AND BOTTOM OF EACH DOOR.

STEP 3
BEGIN TO PLACE EARTH-FILLED ROLLS AGAINST DOOR FORMS. TO FORM EARTH ROLLS, SEE EARTH-FILLED ROLL DETAIL BOTTOM OF PAGE.

FOLD WATERPROOFING MATERIAL UNDER HIGHER EDGE OF DOOR TO KEEP IT FROM SLIPPING.

STEP 4
MOUND EARTH AGAINST THE EARTH-FILLED ROLLS AS SHOWN. CONTINUE PLACING EARTH AND SHEETS TO FORM EARTH-FILLED ROLLS.



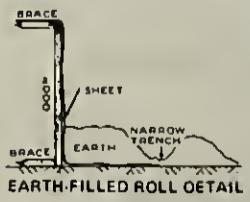
TOOLS AND MATERIALS

1. DOORS AS INDICATED.
2. PICK OR MATTOCK AND SHOVEL.
3. TWO BUCKETS OR LARGE CANS TO CARRY EARTH.
4. TAPE MEASURE, YARDSTICK OR RULE.
5. SAW, AXE OR HATCHET.
6. HAMMER AND AT LEAST 20 NAILS — 2 1/2" LONG.
7. AT LEAST 4 DOUBLE BAD SHEETS FOR EACH PERSON TO BE SHELTERED.
8. PILLOWCASES AND RAINPROOFING MATERIALS SUCH AS PLASTIC OR POLYETHYLENE.
9. WORK GLOVES FOR EACH WORKER.
10. LUMBER FOR USE AS TEMPORARY BRACES AND FOR EXIT/ENTRY FRAMES.



STEP 7
DIG 14" DEEP, 36" WIDE TRENCH INSIDE SHELTER. EARTH CAN BE PLACED DIRECTLY ONTO DOOR DOORS. TRENCH CAN BE MADE UP TO 3 FEET DEEP IF CONDITIONS PERMIT.

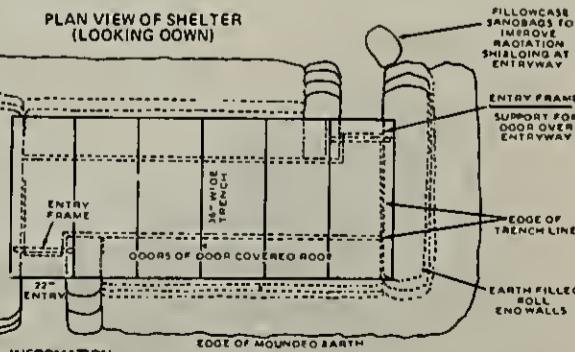
NOTE: IF TRENCHING IS IMPRACTICAL, HEIGHTEN WALLS BY USING ADDITIONAL EARTH ROLLS.



ENTRY/EXIT FRAME TWO REQUIRED

USE 2" X 4" BOARDS SIZE TO FIT ENTRYWAY. MAKE TO INSTALL AFTER ENTRY IS COMPLETED.

ABOUT 22 INCHES WIDE TO FIT ENTRY



GENERAL INFORMATION

THE ABOVE-GROUND DOOR-COVERED SHELTER IS DESIGNED FOR AREAS WHERE BELOW-GROUND SHELTERS ARE IMPRACTICAL, BECAUSE THE GROUNDWATER TABLE OR BEDROCK IS CLOSE TO THE GROUND SURFACE. THIS SHELTER CAN BE BUILT BY FOUR PERSONS WORKING A TOTAL OF 12 HOURS EACH.

READ AND STUDY ALL INSTRUCTIONS BEFORE STARTING TO BUILD. IF DOOR WIDTHS MEASURE LESS THAN 32 INCHES, USE A COMBINATION OF DOORS TO PROVIDE A MINIMUM OF 32 INCHES OF DOOR-WIDTH PER PERSON.